

Tube City IMS, LLC (Tube City)

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Subject Property(ies): 2301 F L Shuttlesworth Drive, Birmingham, AL 35234
3300 35th Avenue North, Birmingham, AL 35207

SDMS Document(s): 10913568, 10984989

104(e) Response Summary:

On August 7, 2012, John E. Minihan, Assisting General Counsel for Tube City, responded to EPA's 104(e) Information Request and Supplemental 104(e) Information Request concerning operations at a steel mill located at 2301 F L Shuttlesworth Drive in Birmingham, Alabama. An active steel mill existed at the facility prior to Tube City's operations at this address. The steel mill has many operations that do not involve Tube City; therefore, the respondent's information pertains only to Tube City's operations and its presence at the facility (10913568).

On July 29, 2014, EPA sent another Supplemental 104(e) Information Request to Tube City concerning its operations at a second location, 3300 35th Avenue North in Birmingham, Alabama. John E. Minihan responded on behalf of Tube City on August 28, 2014 (10984989).

Locations and Descriptions:

Since 1999, Tube City has provided operational support services at a steel mill located at 2301 F L Shuttlesworth Drive in Birmingham, Alabama. The geographic location of the facility is 33°32'42.52 N latitude and 86°48'11.79 W longitude (10913568, p. 42).

In 2007, slag processing and metal recovery operations were transferred from the mill to a 4-acre, sub-leased portion of the Alabama Power Company (APC) facility located at 3100/3300 35th Avenue North in Birmingham, Alabama (10913568, pp. 36-40; 10984989, p. 2).

Operational History:

2301 F L Shuttlesworth Drive Facility

On June 1, 1999, Birmingham Steel Corporation (Birmingham Steel) signed an Operating Service Agreement (Agreement) with Tube City, Inc., predecessor to Tube City, to service their Olympic Mill Services Division. Per the Agreement, Tube City managed Birmingham Steel's scrap yard at the mill. The Agreement clarified that Tube City was not to act as a hazardous, non-hazardous, or toxic substances generator, and that Birmingham Steel was responsible for all disposal activities at the mill. Tube City was responsible for storing lubricants and hydraulic fluid on impervious surfaces and using fuel

storage tanks with double walls for secondary containment. Tube City was also responsible for any materials they owned or brought on to the facility property (10913568, pp. 9-13, 18-19).

Tube City began operations at the subject facility on June 1, 1999, to sort steel slag for processing into manmade aggregate. Other past and present activities include mill scale screening, operation of the mill's scrap yard, railcar movement, furnace pit digging, scrap collection, and miscellaneous services within the facility. Tube City also screens and sells iron oxide mill scale at the facility for Nucor Steel Birmingham, Inc. (Nucor) (10913568).

Scrap handling services involved placing scrap delivered by truck and rail into segregated stockpiles. Tube City cranes loaded charge bucketfuls of scrap onto rail flatcars that electronically weighed the buckets. The railcars were then loaded onto the radio-controlled track mobile (10913568, p. 10).

Tube City removed slag from under the furnace after each "heat" in a process called furnace slag pit digging. All routine slag and scrap spills on the melt shop floor were removed, along with metal spills on the ladle rims. All slag, metal spills, and metal-bearing debris were transported to the Tube City Work Area at the facility for metal recovery (10913568, p. 11).

Raw slag from the slag pits and melt shop cleanup debris was swept by a magnetically equipped drop-ball crane to recover large ferrous scrap. Drop-balled residual material was temporarily stockpiled before being fed through magnetic separating and screening at the processing plant. The processing plant separated metallic ferrous scrap from lower purity iron containing slag. The recovered "A" Scrap was returned to the melt shop; slag was sold back to Birmingham Steel. All by-product materials, including recovered scrap, processed slag, and electrodes not used by Birmingham Steel, were sold by Tube City (10913568, p. 12).

Tube City cleaned out Birmingham Steel's two mill scale settling ponds every six weeks for de-watering. The dried mill scale was screened and stockpiled. Tube City also maintained all roads and provided dust control within its work area (10913568, p. 13).

On September 12, 2003, the Agreement was amended to remove scrap handling services from the Agreement, modify the slag handling and processing procedures, implement a custom-designed slag separation and screening process, change mill scale processing, and remove rail track maintenance from Tube City's responsibilities.¹ Tube City also screens and sells iron oxide mill scale at the facility for Nucor Steel Birmingham, Inc. (Nucor), which took over ownership of the facility from Birmingham Steel in 2002 (10913568, pp. 31-33).

3300 35th Avenue North Facility

On August 24, 2007, Blount Springs and its subsidiary GHCC sub-leased four acres in the southwest corner of their leased property located at 3100/3300 35th Avenue N. to Tube City. The Sub-Lease Agreement pertained to the 3300 portion of this property. Under the agreement, Tube City would use the premises from August 24, 2007, through May 31, 2009, for the operation of its plant, storage of construction equipment, and crushing and stockpiling aggregate and other raw materials. The sub-lease was extended twice and is currently set to expire on December 31, 2014 (10913562, p. 20-21; 10984989, pp. 45-46).

¹ The amended Agreement was with Nucor and not Birmingham Steel. Available file materials suggest that the Operating Agreement with Tube City was assigned to Nucor at this time, though Toeroek located no documentation of the assignment.

Available file materials indicate that Tube City processes steel slag at the location. The slag is sold to GHCC for use as manmade aggregate in its Asphalt Plant No. 3 located on the 3100 portion of the 3100/3300 35th Avenue N. facility. Tube City obtains at least a portion of the steel slag from the Nucor Steel Birmingham (Nucor) facility, located at 2301 F L Shuttlesworth Drive. Tube City has provided mill services (including slag processing) to the Nucor facility at this address since 1999. From 1999 through 2007, Tube City processed the steel slag on site at the Nucor facility. Under a revision to Tube City's contract with Nucor, dated August 7, 2007, Tube City agreed to process Nucor's steel slag at "another" location (10943039, pp. 52 – 232; 10913568, pp. 37-40). Toeroek did not locate records indicating whether Tube City processed slag or other byproducts generated by entities other than Nucor at the 3100/3300 35th Avenue N. facility.

Regulatory History:

2301 F L Shuttlesworth Drive Facility

The facility operates under EPA ID Number ALR000045328. Respondent notes that, since 2008, ADEM Notification of Regulated Waste Activity Form 8700-12 has been submitted annually for generation of used oil at the facility. Nucor Steel is listed as the property owner. The current notification shows that Tube City generates greater than or equal to 25 gallons of used oil monthly for mobile equipment maintenance). The used oil is recycled at a different location by unnamed "others." Schedule B shows that Tube City generates 2,464 lbs. of used oil annually (10913568, pp. 4, 43-45).

Aboveground petroleum tanks at the facility are regulated by ADEM under Owner Account #21169 (10913568, p. 4).

There were no facility investigations included in the Tube City's response; however, an analytical report on what appears to be one slag sample from Nucor was provided (10913568, p. 47). Test method acid digestion/lithium tetraborate fusion identified slag, which contained the following:

- 7.03% aluminum (Al);
- 28.97% calcium (Ca);
- 0.48% free iron;
- 23.09% total iron (Fe);
- 25.15% other forms of iron;
- 11.50% magnesium (Mg);
- 5.34% manganese (Mn);
- 13.02% silicon (Si); and
- 5.34% manganese (Mn).

EPA's independent analysis of the same sample identified, among other constituents, the following:

- 5,873 mg/kg total chromium;
- 0.04 mg/kg hexavalent chromium;
- 990 mg/kg titanium;
- <1 mg/kg mercury;
- 610 mg/kg copper; and
- 1,162 mg/kg phosphorus.

TCLP results of this sample were all below maximum allowable values (10913568, pp. 48, 49).

3300 35th Avenue North Facility

A laboratory analysis of steel slag from the Nucor facility, conducted on March 14, 2012, indicated the following trace constituents (in mg/kg):

- <4 antimony;
- <5 arsenic;
- 747 barium;
- <1 beryllium;
- 1 cadmium;
- 610 copper;
- 5,873 total chromium;
- <0.07 hexavalent chromium;
- <4 lead;
- <1 mercury;
- 35 molybdenum;
- 580 nickel;
- 1,162 phosphorous;
- 132 potassium;
- <4 selenium;
- <5 silver;
- 945 sodium;
- 1,300 sulfur;
- <4 thallium;
- 1,990 titanium;
- 736 vanadium;
- 175 zinc; and
- 304 boron.

Toxicity characteristic leaching procedure (TCLP) results were all below maximum allowable values (10913568, pp. 48-49).

On August 16, 2007, JCDH issued Air Permit No. 4-07-0575-001-01 to Tube City to cover its slag crushing and screening operations at the 3300 35th Avenue N. location. On January 29, 2014, Tube City submitted an Annual Report of Throughput and Emissions to ADEM pursuant to the permit. Per the report, annual emissions at the location consisted of:

- TSP – 0.17 tons per year;
- PM₁₀ – 0.06 tons per year; and
- PM_{2.5} – 0.01 tons per year.

Tube City submitted similar annual emissions numbers for this facility in 2007 (10984989, pp. 4-17).

In its 104(e) Information Request Response, dated July 29, 2014, Tube City included the results of slag sample analyses conducted by a third party in 2005, 2008, 2011, 2012 and 2014. The Trace Constituents section of each analytical report indicates the presence of arsenic, copper, lead, and mercury in the slag samples. Tube City stated that it was unaware of any releases of these or other contaminants from the facility (10984989, pp. 2, 18-32).

The steel slag processed by Tube City may contain various 35th Avenue Superfund Site COCs, including arsenic, copper, lead, and mercury; however, the limited waste laboratory analysis information provided by Tube City indicates that the levels of these constituents are generally low (10913568, pp. 48-49).

Corporate History:

Tube City, Inc. incorporated in the State of Delaware on June 22, 1987. The company qualified to do business in Alabama on October 6, 1992. On September 12, 2003, Tube City, Inc. converted to Tube City, LLC. On December 31, 2007, the company changed its name to Tube City IMS, LLC. ASOS lists Tube City as an active entity (20140325-S-Tube City IMS LLC (DSOS), 20130530-S-Tube City Inc (ASOS), 20141016-S-Tube City IMS LLC (ASOS)).

Tube City is the primary operating subsidiary of TMS International Corp. It provides pre- and post-production outsourced mill services for steelmakers. According to its 2012 10-K, TMS International Corp. and its affiliates provided services for nine facilities that were owned/operated by Nucor Corporation (Nucor Steel Birmingham's parent company) or its subsidiaries. As of the date of the 10-K, Nucor Corporation had been a customer of TMS International Corp. for 33 years (2014325-M-TMS International Form 10-K, pp. 18-19).

Other Operations/Facilities at these Locations:

2301 F L Shuttlesworth Drive Facility

- CECO Steel (1950s – 1970) (19900319-A-ALD000622852CC);
- Southern Electric Steel Company (1969 – 1979) (19900319-A-ALD000622852CC);
- Southern United Steel Corporation a/k/a Birmingham Bolt Company (1979 – July 1992) (19900319-A-ALD000622852CC);
- Birmingham Steel Corporation (December 1992 – December 2002) (10903941); and
- Nucor Steel Birmingham, Inc. (December 2002 – Present) (10903941).

3100/3300 35th Avenue North Facility

- APC currently owns the property. It operated the property from the late 1920s through 1975;
- APC leased the property to Southeastern Resources and its successors from 1980-1996;
- APC leased the property to Thomasson Coal & Coke Co., Inc. from 1990-1995;
- APC leased the property to Blount Springs from 1998-2010; and
- APC leased the property to GHCC from 2010-Present (10913562, 10985197).

Refer to the Associated Party Summaries for the above-listed entities for further information on operations at these two locations.

Conclusions and Follow Up:

From 1999 to the present, Tube City has conducted steel slag processing operations at the 2301 F L Shuttlesworth Drive Facility, which is within 1.31 miles of the Walter Coke Facility. The waste stream of interest for this party includes metals. Available and existing information suggests that operations at the facility may have led to the release of COCs identified at the 35th Avenue Superfund Site, although there is no specific evidence of such releases.

In addition, Tube City has conducted steel slag processing and related activities on a 4-acre portion of property located at 3300 35th Avenue North, approximately one-half mile from the Walter Coke Facility, since 2007. The waste stream of interest for this party includes metals. Available and existing information suggests [REDACTED]

The Toeroek Team recommends that EPA conduct the following additional research to fill data gaps in the information provided:

- [REDACTED]